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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,830	09/19/2001	Walter Clark Milliken	00-4058	1692

32127 7590 04/20/2005

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EXAMINER

DERWICH, KRISTIN M

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/955,830	Applicant(s) MILLIKEN, WALTER CLARK	
	Examiner Kristin Derwich	Art Unit 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 and 7-14 is/are allowed.
- 6) ☒ Claim(s) 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-14 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 6 rejected under 35 U.S.C. 102(b) as being anticipated by Kent et al.

(Kent).

As per claim 6:

Kent teaches a method of maintaining a window of valid sequence numbers comprising:

determining characteristics of a security association (pg. 10, 6th paragraph, lines 1-8, wherein the SA is a security association and the Sequence Number field,

Authentication Data field and algorithms and keys function as characteristics of the SA);

and setting a bottom value and a top value to define a window having a variable size based on said characteristics of said security association (pg. 11: 6th paragraph, lines 1-4).

The left edge functions as the bottom value and the right edge functions as the top value of the sliding window. The size of the window is variable because it can be any size that falls between the range set by the minimum and maximum window size

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(pg. 11: 4th paragraph, lines 4-5 – 5th paragraph, lines 1-3) and this size is dependent upon the settings the receiver implements when enabling the anti-replay service on a per-SA basis, so although the receiver decides on the window size, it is implemented through the SA (pg. 10: last paragraph, lines 1-2; pg. 11: 5th paragraph, lines 1-2).

receiving a sequence number for a packet (pg. 11: 3rd paragraph, lines 3-4, wherein since the receiver verifies that a sequence number is present in each received packet, the receiver must be receiving a sequence number for a packet);

comparing said sequence number to said window (pg. 11: 6th paragraph, lines 4-5 wherein checking the sequence number against a list of received packets within the window functions as comparing the number to the window);

setting a new top value equal to said sequence number if said sequence number is greater than the said top value (pg. 11: 8th paragraph, lines 1-4);

and setting a new bottom value based on said new top value (pg. 11: 8th paragraph, lines 1-4).

Since the right edge functions as the top value, when a sequence number falls to the right of that edge, that sequence number is greater than that right edge value and since the left edge functions as the bottom value, when a sequence number falls to the left of that edge, then the sequence number is less than the left edge value. Therefore, when a packet either falls within the window or to the right of the right edge, this packet is valid, therefore the window data, which consists of the right and left edge values, must be updated. Updating the sequence number data involves “sliding” the window forward so that if the packet number is to the right of the right edge value, then that

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packet number becomes the new right edge value and the window size is used to calculate the new left edge value because the window is a sliding one (pg. 11: 4th paragraph, line 1).

Allowable Subject Matter

3. Claims 1-5 and 7-14 allowed.

As per claims 1-5:

Kent fails to teach bit map memory used to store multiple level bit maps representing sequence numbers of packets.

As per claims 7-14:

Kent further fails to teach the multiple level bit maps being divided into a plurality of summary bits and comparing these summary bits to determine the validity of a sequence number and setting a value based on this comparison.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristin Derwich whose telephone number is 571-272-7958. The examiner can normally be reached on Monday - Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

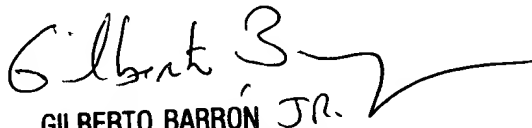
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KD

KD

Kristin Derwich
Examiner
Art Unit 2132


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